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Yu Zhang

University of Wollongong, azhang@uow.edu.au

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Abstract

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Methodology - This paper used quantitative research method to examine the key determinants of trust in Australian and Chinese business collaborations. Qualitative face-to-face interviews are also conducted in Australia and China to examine the results and provide complimentary support for the quantitative research results.

Findings - Trust is influenced by different factors in business collaboration in different countries. Communication and contact person are vital to firm level trust in both China and Australia. However, the size and reputation of partner firm play more important role in business trust in Australia. Culture similarity plays significant role in Chinese business trust relationships but Australian.

Value - The findings extend our knowledge on firm level trust in business collaborations. It distinguished the differences of key determinants for firm level trust in Australia and China.

Keywords

Trust, business, collaboration

Disciplines

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Yu Zhang

University of Wollongong, Wollongong, Australia

*Yu Zhang, E-mail: azhang@uow.edu.au

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Keywords: Collaboration, Trust, Communication, Culture difference

1 Introduction

Almost all the researchers agreed that trust plays a vital role in business collaborations. However, few empirical studies have assessed trust in business collaboration as it is hard to be measured and weighted. It

received less attention in neoclassical theories and was neglected by some researchers in previous economic studies. Some studies in strategic management and network perspective, on the other hand, focused on the role of trust in business operation and

collaboration. However, the results varied.

The purpose of this research is to examine the key factors that influence firm level trust in different countries. Most of the previous empirical studies focused on developed countries, especially U.S., Japan, and some Europe countries. However, there is a gap in the research to compare the differences of Australian and Chinese firms. Therefore, this paper focused on the secret factors of business trust in both Australia and China.

2. Literature Review

Trust operates at many levels – interpersonal, intergroup, organizational, and societal (Cummings & Bromiley, 1996), and has been explored by personality theorists, economists, sociologists, and social psychologists.

It is surprising to find how researchers have diversely defined and used the term “Trust” in previous literatures that Kay (1999) argued that the definition for trust is less

straightforward. Williamson (1993, 1996) argued that blind, unconditional trust is generally unwise and misleading. McAllister (1995) defines trust as the degree to which parties are willing to act on the words, actions and decisions of others. Creed and Miles (1996) take this further and argue that the most critical factor in increasing (or decreasing) trust is the number of positive exchanges.

Trust is a complex concept (Nooteboom, etc., 1997). Relational trust is developed by means of multiple contacts between the same companies (Ring and van de Ven, 1992). Gulati (1995b), Nooteboom et al. (1997) and Saxton (1997) suggest that prior relationships create relational trust between companies. Gradually this relational trust is expected to become institutionalized trust that influences the content of the exchange between partners (Zaheer et al., 1998). Trust in this thesis is the inter-firm trust that influences the performance and result of business collaboration.

2.1 Economic Literatures

Trust is mentioned as one of the most important elements to a successful collaboration by some economic researchers¹. Trust is an expression of confidence in inter-firm collaboration (Barney and Hansen, 1994; Friedman, 1991; Gulati, 1998). Empirical studies² also showed that inter-firm collaboration is associated with trust. However, trust was missed in neoclassical models.

Resource-based theory used reputation as an intangible asset, which is one component of trust (Barney, 1986; Grant, 1991). Regional economics also included reputation as a central transmitter of information in a socioeconomic community and emphasized the importance of trust (Kristensen and Andersen, 1998; Dei Ottati, 1994). However, trust was missed in most of previous economic

models as it is hard to be measured and weighted.

2.1 Management and business studies

To some management researchers³, trust is a more effective and less costly alternative to both contracts and vertical integration, which reduces uncertainty and conflicts (Nooteboom et al., 1997; Zahher et al., 1998). Trust is developed through performance over time (Ragatz et al., 1997). It is an intangible asset, which makes future cooperation easier (Nooteboom, et al., 1997). The more frequently and longer the collaboration, the more likely they will bring higher levels of trust (Fukuyama, 1995; Gulati, 1998).

Concepts such as honest dealing (Das and Teng, 1998) veracity, openness, acceptance, support, and dialogue have been used to describe antecedent conditions for trust building among collaborating business partners.

¹ Barber, 1983; Lewis, 2000; Lorenz, 1988; Nooteboom et al., 1997; Zahher, et al., 1998; Zucker, 1986

² Buckley and Casson, 1988; Nooteboom et al., 1997; Zaheer, McEvily, and Perrone, 1998; Zaheer and Venkatraman, 1995; Zhang and Harvie, 2009, 2010a

³ Aulakh et al., 1996; Bern heim and Whinston, 1998; Bradach and Eccles, 1989; Dyer and Singh, 1998; Gulati, 1995, 1998; Kale, 1999; Zhang and Harvie, 2009, 2010a

Creating trust between partners is essential for establishing collaborative relationships (Ring and Van de Ven, 1994). Ragatz et al. (1997) showed that trust is developed more through performance to expectations over time in active business relationships, rather than through formal trust development techniques.

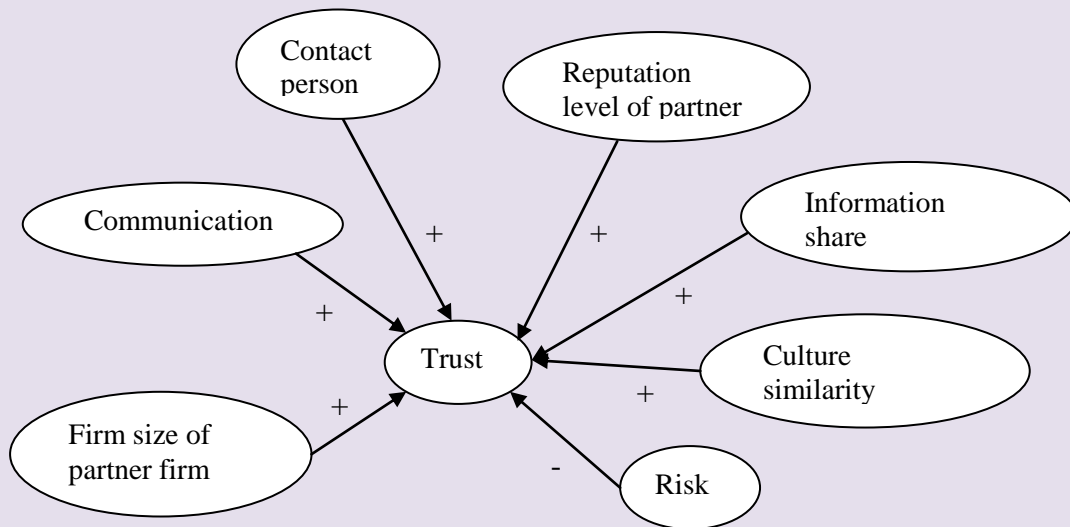
2.3 Theoretical Framework

Many researchers studied on the effect of trust in business collaboration (Borch, 1994; Brunetto and Rod, 2007). Although trust itself is not sufficient as a basis for formation of collaboration (Williamson, 1988), it is very important to the performance of inter-firm collaboration (Gulati, 1995; Nooteboom et al., 1997).

As a sum, firm level trust is influenced by firm size (Zhang and Harvie, 2010a), industry reputation (Saxton, 1997), personal trust between the members, business networks, previous experience, similar culture (Kuada, 2002), business and process (Creed and Miles), quality of communication, and openness on information. On the other hand, it is also negatively related to the risk inherent in collaboration (Ring and Van de Ven, 1994; Zhang and Harvie, 2010b).

From the previous literatures, a conceptual model of business trust is built as below:

Figure 1.2 Trust and performance of inter-firm collaboration



$$\text{TRUST} = \alpha + \beta_1 \text{PSIZE} + \beta_2 \text{RISK} + \beta_3 \text{COMMUNICATION} + \beta_4 \text{CULTURE} + \beta_5 \text{PREPUTATION} + \beta_6 \text{CONTACT} + \beta_7 \text{INFOSHARE} + \varepsilon$$
 (Collaboration Model)

TRUST = Overall subjective trust level during business collaboration.

PSIZE = Size of the partner firm, ranged from 1 to 6 (small to large),

RISK = Risk level is a dummy control variable,

COMMUNICATION = Communication index, including efficiency of communication, understanding of communication, and frequency of communication,

CULTURE = Culture similarity index, including similar culture, similar religions, similar language, and similar technology,

CONTACT = contact person reliable level is a dummy control variable,

INFOSHARE = level of information share or openness is objective control variable calculated from different survey questions,

PREPUTATION = Industry reputation level of the partner is a dummy control variable,

ε = Error term of model.

3. Methodology

3.1 Data collection

The research first applied a face-to-face interview. The interviewed companies are selected from the Australian Telecommunications Industry Ombudsman (TIO) and the researcher's business network. Totally 31 interviews were conducted in both Australia and China from Oct 23rd, 2008 to Jan 29th, 2009. The interviewees include CEOs, key managers, and senior executives, who have a good knowledge on collaboration and development strategy of the firm.

The quantitative study was conducted in both Australian and China from 15th May to 6th Jul, 2010. The selected participants are taken from three sources: (1) Australian Telecommunications Industry Ombudsman (TIO) lists, (2) The researcher's former business networks, and (3) extension of the researcher's business networks. An

online survey system was developed by the researcher to save the costs and make it more convenience for the interviewees. As a result, 342 online surveys were collected from both Australia and China, including 3 invalid (uncompleted) surveys. Therefore, the final valid surveys are 339, including 239 firms from China and 100 firms from Australia.

3.2 Hypotheses

With the process of internationalization, increasing numbers of firms are involved in global collaboration to reduce the cost, access high technologies, and extend their markets. Inter-firm trust relationships are also changed with the development of new technologies, economic changes and new businesses. Furthermore, firms in different countries may have different communication method, customs, religions, and cultures. Therefore, they may have different attitudes on business trust when doing local and international business collaborations.

Special attention should also be paid to different countries that have their own characters.

The hypotheses for this research are:

- Hypothesis 1: Risk plays a negative role in inter-firm trust relationship between collaborating firms.

Risk level is expected to be negatively related to trust level in business collaborations. The higher the risks level during collaboration, the lower the trust level in business collaboration.

- Hypothesis 2: The reputation of collaborator has positive influence on inter-firm trust level.

Reputation level of collaborator in the industry may have positive influence on inter-firm trust level, the higher the reputation level of the partner, the higher the trust level in business collaboration.

- Hypothesis 3: Inter-firm communication has positive influence on inter-firm trust level.

Communication is important not only for inter-firm collaboration, but also

for any firm. It is highlighted in most management and business books. Timely and sufficient communications are vital for inter-firm collaboration. Insufficient communication can lead to misunderstanding and fail in inter-firm collaboration.

- Hypothesis 4: The reliable level of the contact person during collaboration has positive influence on inter-firm trust level.

Both Australian and Chinese interviewees have confirmed that the contact person (it could be the project manager, CEO, employee, or any other external person) in business collaboration is important to the result or performance of this collaboration. Therefore, we expect there is a positive relationship between the reliable level (which include the first impression on the contact person, the communication and behavior during the collaboration and afterward impression on the contact person) and result of business collaboration.

- Hypothesis 5: The share/openness of information has positive

influence on inter-firm trust level.

It is examined by many literatures that the openness or share of information is important to the performance of business collaboration. We expect a positive relationship between the share of information and performance of business collaboration.

- Hypothesis 6: Partner firm size has positive influence on inter-firm trust level.

With the increase of partner firm size, the trust level of business collaboration is expected to be increased.

- Hypothesis 7: Culture similarity is expected to play a positive role in business trust.

Inter-firm trust is expected to be higher if the managers, contact person, or team members have similar culture background. Culture similarity is an index, which is a combination of culture similarity, similarity in religions, language, and technology level.

- Hypothesis 8: Inter-firm trust is affected by different factors in

different countries.

Trust is composed by very different factors in different countries or cultures. There are many literatures studied the personal and business level trust in the past. Trust is affected by very different factors in different countries or cultures. However, there is a lack of research on compared trust relationship in Australia and China. This paper will focus on business trust in both Australia and China.

3.3 Data Analysis

As the dependent trust variable in this study is collected by five-point Likert scale, an ordered Logit method is adopted in this study. Risk level, communication variables, similarity, contact person reliable level, business network participant level, and partner's reputation level are control variables in the model. Firms size and information share are independent variables. The results will be discussed in the following section.

4 Results and discussions

that trust is influenced by different factors.

4.1 Quantitative results

As shown in table 1.1 below, the quantitative research result supported

Table 1.1 Quantitative analysis

Dependent Variable: TRUST Sample: 339
 Method: ML - Ordered Probit (Quadratic hill climbing)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
COMMUNICATION	0.319272	0.039510	8.080838	0.0000
INFOSHARE	0.142653	0.083601	1.706360	0.0879
PSIZE	-0.089616	0.035430	-2.529394	0.0114
PREPUTATION	0.495812	0.161538	3.069330	0.0021
CONTACT	1.802331	0.192403	9.367455	0.0000
RISK	-0.392630	0.265559	-1.478501	0.1393
CULTURE	0.026057	0.016378	1.590993	0.1116
Pseudo R-squared	0.325608	Akaike info criterion		1.791150
Schwarz criterion	1.926583	Log likelihood		-291.5999
Hannan-Quinn criter.	1.845120	Restr. log likelihood		-432.3890
LR statistic	281.5782	Avg. log likelihood		-0.860177
Prob(LR statistic)	0.000000			

The outcome of the study supported that risk plays a negative role in trust relationship between collaborating firms. However, the null hypothesis of H1 cannot be rejected at 10 per cent level. Therefore, risk does not have significant influence on business trust level, although it is negatively related to trust level.

The null hypothesis of H2, H3, and H4 are rejected at 1 per cent level. Therefore, the industry reputation of the partner firm, the reliable level of contact person, and the quality of communication have significant (at all levels) positive influence on business trust relationship.

The null hypothesis of H5 is rejected at 10 per cent level. Therefore, the share or openness of information plays significant positive role in business trust relationship.

The null hypothesis of H6 is rejected at 5 per cent level. However, the sign of coefficient β_1 is negative, which shows a significant negative relationship between the partner firm size and business trust relationship. The bigger the partner firm, the lower

the trust level. Therefore, hypothesis six cannot be accepted.

The null hypothesis of H7 cannot be rejected at 10 per cent level. Therefore, culture similarity cannot be proved to play a significant role in business trust in this study.

When the result is separated into different countries (Australia and China), table 1.2 shows the separated results.

Table 1.2 Results separated by Australia and China

	Australia	China	Overall
Business Trust	(+)Communication ***	(+)Communication ***	(+)Communication ***
	(+)Information share *	(+)Information share *	(+)Information share *
	(-)Partner firm size **	(-)Partner firm size	(-)Partner firm size ***
	(+)Partner reputation **	(+)Partner reputation *	(+)Partner reputation ***
	(+)Contact person ***	(+)Contact person ***	(+)Contact person ***
	(-)Risk	(-)Risk	(-)Risk
	(+)Culture	(+)Culture ***	(+)Culture

The quality of communication and positive significant (at all levels) reliable level of contact person have influence on trust level in both

Australia and China. The contribution of information share in business trust is similar in Australia and China. Risk is negatively related to business trust but does not significantly contribute to it. However, partner firm size is only important to business trust in Australia but China. The industry reputation level of partner firm plays more important positive role in Australian business trust. On the other hand, culture similarity plays significant positive (at all levels) role in business trust in China but Australia.

5.2 Discussion and implications from results

The qualitative interview results also supported the findings from quantitative data analysis. Communication and contact person are mentioned by interviewed managers as one of the most important determinants in business collaboration. One interviewed manager indicated: "Communication needs to be transparent, accurate, and in time." The other one agreed: "The

contact person is vital to collaboration. If the contact person is changed during collaboration, the result could be totally changed." To keep a good trust relationship, suitable frequency of communication, good understanding in communication, and high efficiency in communication are important. The contact person (not necessarily be a member in the collaborating project or firms) also plays important role in real-time communication.

The sign of β_1 (PSIZE) is negative, which is reversed as expected result. The results are similar in both Australia and China. A possible explanation for this result is the bigger the partner firm, the higher the pressure on the interviewed firm. Large firms usually follow a formal process in collaborating, which required less trust relationship but objective criteria in performance assessment. This result is also according with previous research on business collaboration. The bigger the partner firm compared with the

interviewed firm, the lower the performance of business collaboration (Zhang and Harvie, 2010b).

Reputation and firm size of partner firm plays more important role in Australia but China. The possible explanation for this result could be the mature credit system in business collaboration in Australia. Reputation level of Chinese firms plays less important role in business collaboration in China. On the other hand, some smaller firms have better performance than larger firms in China as some large firms are state-owned firms.

Culture similarity plays more important role in China than Australia. This is because Australia is an immigration country, which combined many different cultures, religions, and social languages. Managers in Australia are usually familiar with many different cultures and languages. The qualitative interviews also supported this result. All the Australian managers indicated that

they have no problem in international collaboration and cross cultures collaboration. However, 13 out of 24 interviewed Chinese managers agreed that they feel language or culture barriers are important barriers for their international collaborations.

As the barriers and factors influence business trust are very different in different countries, government agencies or industry associations should also take account of these differences in their business collaborating and exporting assistant or promoting programs.

5.3 Future research

This study only collected data from Australia and China. The questions and firm size are defined due to this research range. Therefore, if further researches are going to be conducted in other countries, the research questions and methods should be changed due to special environment and official definition of firm size in those countries.

It should also be argued that the factors influenced trust varies in different countries. Therefore, further research could focus on different cultures, nations, and regions to decode the secrets of trust in different places.

6 Conclusions

Most researchers agreed that trust is important to business collaborations. Both quantitative results and qualitative results in this study supported this view. However, the quantitative results showed that trust in business collaboration is influenced by very different factors in different countries.

Communication and reliable level of contact person are vital to business trust level during collaboration in both Australia and China. However, risk plays negative role in business trust. Culture similarity plays significant positive role in Chinese business trust relationships but Australian. Size and

reputation of partner firm play more important role in Australian business trust relationships than Chinese.

The qualitative case study also supported this result. Managers from different firms agreed that trust is influenced by different views and factors in different countries. Further researches that focused on trust relationship in business collaborations should pay more attention on countries difference, culture difference, and different business environments. Government assist programs should focus on the differences of cross cultural trust relationship in business collaborations.

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